

WHAT IS CLAIMED IS:

1. A therapeutic or prophylactic agent for arthritis comprising a guanyl cyclase B (GC-B) activator as an active ingredient.
2. The therapeutic or prophylactic agent according to claim 1, wherein the arthritis is osteoarthritis.
3. The therapeutic or prophylactic agent of claim 2, wherein the osteoarthritis is osteoarthritis of weight bearing joints or non-weight bearing joints.
4. The therapeutic or prophylactic agent of claim 3, wherein the osteoarthritis is degenerative gonarthrosis.
5. The therapeutic or prophylactic agent of claim 3, wherein the osteoarthritis is degenerative coxarthrosis.
6. The therapeutic or prophylactic agent of claim 3, wherein the osteoarthritis is temporomandibular arthrosis.
7. The therapeutic or prophylactic agent of claim 1, wherein the arthritis is caused by rheumatoid arthritis.
8. The therapeutic or prophylactic agent of claim 1, wherein the arthritis is caused by osteoarthritis.
9. The therapeutic or prophylactic agent of any one of claims 1 to 8, wherein the GC-B activator is a C-type natriuretic peptide (CNP) or a derivative thereof.
10. The therapeutic or prophylactic agent of claim 9, wherein the CNP is selected from CNP-22 and CNP-53 from mammals, including human, or birds.
11. The therapeutic or prophylactic agent of claim 9, wherein the CNP is CNP-22 of SEQ ID NO:1 or CNP-53 of SEQ ID NO:2.
12. The therapeutic or prophylactic agent of claim 9, wherein the derivative has a deletion, substitution or addition of one or several amino acids in the amino acid sequence of SEQ ID NO:1 or SEQ ID NO:2, while possessing a CNP activity.
13. The therapeutic or prophylactic agent of claim 1, further comprising at least one nonsteroidal anti-inflammatory drug.

14. An agent for promoting the growth of articular chondrocyte, comprising a GC-B activator as an active ingredient.
15. The agent of claim 14, wherein the GC-B activator is a CNP or a derivative thereof.
16. The agent of claim 15, wherein the CNP is CNP-22 or CNP-53 from mammals, including human, or birds.
17. The agent of claim 15, wherein the CNP is CNP-22 of SEQ ID NO:1 or CNP-53 of SEQ ID NO:2.
18. The agent of claim 15, wherein the derivative has a deletion, substitution or addition of one or several amino acids in the amino acid sequence of SEQ ID NO:1 or SEQ ID NO:2, while possessing a CNP activity.
19. The agent of claim 14, further comprising at least one nonsteroidal anti-inflammatory drug.
20. A method for inhibiting arthritis, wherein the arthritis is inhibited by activating GC-B.
21. The method of claim 20, wherein the GC-B is activated by a CNP or a derivative thereof.
22. The method of claim 21, wherein the CNP is CNP-22 or CNP-53 from mammals, including human, or birds.
23. The method of claim 21, wherein the CNP is CNP-22 of SEQ ID NO:1 or CNP-53 of SEQ ID NO:2.
24. The method of claim 21, wherein the derivative has a deletion, substitution or addition of one or several amino acids in the amino acid sequence of SEQ ID NO:1 or SEQ ID NO:2, while possessing a CNP activity.
25. The method of claim 20, wherein the GC-B is activated by a combination of a CNP or a derivative thereof and at least one nonsteroidal anti-inflammatory drug.
26. A method for promoting the growth of articular chondrocyte, wherein said growth is promoted by activating GC-B.
27. The method of claim 26, wherein the GC-B is activated by a CNP or a derivative thereof.

28. The method of claim 27, wherein the CNP is CNP-22 or CNP-53 from mammals, including human, or birds.
29. The method of claim 27, wherein the CNP is CNP-22 of SEQ ID NO:1 or CNP-53 of SEQ ID NO:2.
30. The method of claim 27, wherein the derivative has a deletion, substitution or addition of one or several amino acids in the amino acid sequence of SEQ ID NO:1 or SEQ ID NO:2, while possessing a CNP activity.
31. The method of claim 26, wherein the GC-B is activated by a combination of a CNP or a derivative thereof and at least one nonsteroidal anti-inflammatory drug.
32. A method for screening an articular chondrocyte growth promoter, comprising screening candidate agents for the ability to promote the growth of articular chondrocyte using GC-B activity as an indication.
33. The method of claim 32, comprising preparing cultured cells that express GC-B or cells from articular chondrocytes, culturing the cells in the presence of a candidate agent, and screening the candidate agents for the ability to promote the growth of articular chondrocyte using the cellular GC-B activity as an indication.
34. The method of claim 32 or 33, wherein the GC-B activity is determined as an amount of produced intracellular cGMP.
35. The method of claim 32, comprising preparing a cultured cell line which has been forced to express GC-B, culturing the cell line in the presence or absence of a candidate agent, determining the amount of produced intracellular cGMP, and screening the candidate agents for the ability to promote the growth of articular chondrocyte using as an indication the difference between the amounts of intracellular cGMP produced in the presence and absence of the candidate agent.
36. A method for screening a therapeutic agent for osteoarthritis, rheumatoid arthritis or other arthritis comprising screening candidate agents for an agent capable of treating osteoarthritis, rheumatoid arthritis or other arthritis using GC-B activity as an indication.
37. The method for screening of claim 36, comprising preparing cultured cells that express GC-B, or cells from articular chondrocytes, culturing the cells in the presence of a candidate

agent, and screening the candidate agent for an agent capable of treating osteoarthritis, rheumatoid arthritis or other arthritis using the cellular GC-B activity as an indication.

38. The method of claim 36 or 37, wherein the GC-B activity is determined as an amount of intracellular cGMP produced.

39. The method of claim 36, comprising preparing a cultured cell line which has been forced to express GC-B, culturing the cell line in the presence or absence of a candidate agent, determining the amount of intracellular cGMP produced, and screening the candidate agents for an agent capable of treating osteoarthritis, rheumatoid arthritis or other arthritis using as an indication the difference between the amounts of intracellular cGMP produced in the presence and absence of the candidate agent.

40. A therapeutic or prophylactic agent for osteoarthritis comprising a guanyl cyclase B (GC-B) activator as an active ingredient.

41. The therapeutic or prophylactic agent for osteoarthritis of claim 40, further comprising at least one nonsteroidal anti-inflammatory drug.

42. A therapeutic or prophylactic agent for rheumatoid arthritis comprising a guanyl cyclase B (GC-B) activator as an active ingredient.

43. The therapeutic or prophylactic agent for rheumatoid arthritis of claim 42, further comprising at least one nonsteroidal anti-inflammatory drug.

44. An activation promoter for a GC-B activator, comprising a nonsteroidal activator.

45. The activation promoter of claim 44, wherein the GC-B activator is a CNP or a derivative thereof.

46. The activation promoter of claim 45, wherein the CNP is selected from CNP-22 and CNP-53 derived from mammals, including human, or birds.

47. The activation promoter of claim 45, wherein the CNP is CNP-22 of SEQ ID NO:1 or CNP-53 of SEQ ID NO:2.

48. The activation promoter of claim 45, wherein the derivative has a deletion, substitution or addition of one or several amino acids in the amino acid sequence of SEQ ID NO:1 or SEQ ID NO:2, while possessing CNP activity.

49. The activation promoter of claim 44, wherein the nonsteroidal activator is a cyclooxygenase inhibitor.

50. The activation promoter of claim 49, wherein the cyclooxygenase inhibitor is selected from the group consisting of indomethacin, ibuprofen, piroxicam, salicylic acid, diclofenac, ketoprofen, naproxen and piroxicam.

51. A method for activating a GC-B activator, wherein the activation promoter of any of claims 44-50 is used.